

BY ORDER OF THE COMMANDER TWENTIETH AIR FORCE INSTRUCTION 91-201
TWENTIETH AIR FORCE

4 JUNE 2013



Safety

**40MM EXPLOSIVE HANDLING AND
SAFEKEEPING PROCEDURES WITHIN THE
TWENTIETH AIR FORCE MISSILE COMPLEX**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: This publication is available for downloading on the e-Publishing website at www.e-publishing.af.mil.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: 20 AF/SEW

Certified by: 20 AF/SE
(Col David S. Bunz)

Supersedes: 20 AFI 91-2, 15 February
2008

Pages: 4

This publication establishes procedures and responsibilities for the safe handling of 40MM High Explosive Dual Purpose (HEDP) munitions dispatched with a Security Forces (SF) team to a Missile Alert Facility (MAF) in the ICBM complexes within Twentieth Air Force. Applicability encompasses all personnel assigned to the 90 MW/91 MW/341 MW, to include Air Force Reserve and Air National Guard (ANG) members when on duty status. This publication is in accordance with AFMAN 91-201, *Explosive Safety Standards*. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS). Comply with AFI 33-332, Privacy Act Program, for documents containing privacy act information. Comply with DoDM 5200.01-V2, DoD, *Information Security Program* and AFI 31-401, *Information Security Management* for documents containing For Official Use Only information. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route the AF Form 847 from the field through major command (MAJCOM) publications/forms managers. Refer recommended changes and questions about this publication to the Office of Primary Responsibility.

SUMMARY OF CHANGES

This document has significant changes and requires complete review. Most notably, this document now defines the effective casualty radius of the 40MM. It also standardizes procedures for 40 MM storage in the Security Control Center (SCC) throughout Twentieth Air Force units.

1. Responsibilities. Security Force (SF) personnel are primarily responsible for ensuring the safe handling of 40MM HEDP Linked (HD 1.1) rounds transiting through the missile flight area and at the MAF. All personnel assigned to or supervising an SF team shall understand and implement the requirements in this publication.

2. Handling Procedures. When an SF team equipped with 40 MM munitions positions at a MAF, the following items pertain to handling the munitions while temporarily kept in the Security Control Center (SCC).

2.1. Expose the minimum number of personnel to the minimum amount of explosives for the minimum amount of time. While the 40MM cartridges (CTG) are in the SCC, only mission essential personnel will be in the office and only for the minimum amount of time.

2.2. Ensure all personnel handling or working around ammunition or explosives (AE) receive explosive safety training at required intervals IAW AFI 91-202, *The US Air Force Mishap Prevention Program*.

2.3. 90 MW, 91 MW and 341 MW will keep this AE in the weapons locker or container located within the SCC.

2.4. 40MM cartridges contain explosive material and will be handled IAW AFMAN 91-201, *Explosive Safety Standards* and applicable 40MM storage and maintenance Technical Orders.

2.5. Consider 40MM cartridge(s) dropped more than five feet or any cartridge(s) dropped from a moving vehicle unserviceable. Explosive Ordnance Disposal (EOD) and Missile Wing (MW) Weapons Safety will be contacted for further guidance on any AE dropped meeting the above criteria. Do not use damaged munitions.

2.6. If damage occurs to containers, immediately notify EOD and MW Weapon Safety for further guidance. Do not use damaged munitions.

2.7. When handling 40MM cartridges, do not strike primers; personnel injury could occur.

2.8. The high-explosive grenade has an effective casualty radius of five meters (16 feet). Effective casualty radius is defined as the radius of a circle about the point of detonation in which it normally may be expected that 50 percent of the exposed personnel will become casualties.

3. Temporary Safekeeping Procedures. The SF Team shall take the following actions to ensure the safety of all personnel assigned to the MAF.

3.1. Munitions will be stored in the weapons storage locker or container located in the SCC, ensuring maximum protection to other personnel at the MAF. The SF team will be responsible for ensuring segregation of munitions by type.

3.2. Missile/projectile (fragments), fire, intense heat and irritant are the principal hazards associated with handling and safekeeping of the 40MM munitions.

3.3. Do not store any other type of AE in the container with the 40MM munitions.

3.4. Do not place paints, oils or other flammable materials in containers where storing munitions. Keep all flammable items in closed containers and stored in authorized areas.

3.5. Extreme heat may cause pressure to develop and a combination of high temperature and humidity will cause propellant to deteriorate rapidly.

3.5.1. Temperature limits for the 40MM CTG HEDP XM430 Linked rounds shall not go below -65 degrees or above 160 degrees Fahrenheit.

3.5.2. Temperature limits for the 40MM CTG HE M406 W/PD FZ M551 rounds shall not go below -65 degrees or above 160 degrees Fahrenheit.

3.6. Dunnage shall be constructed and arranged so stacks will not lean, fall, sag or shift, if required.

3.7. Arrange stacks permitting free circulation of air, if required.

3.8. The Flight Security Controllers (FSC) will be responsible for ensuring the posting of the appropriate fire hazard symbol on the entrance to the SCC and weapons storage locker or container IAW AFMAN 91-201 when AE is located on site.

4. Mishap Procedures:

4.1. Lack of specific safety requirements in this publication does not negate use of appropriate safeguards. If encountering a dangerous situation, cease all operations in the immediate area. Evacuate all personnel to a safe site. Call an EOD team and other authorized personnel for help in eliminating the hazard. Resume operations only after elimination of the hazard. If evacuating the MAF due to a dangerous situation involving munitions, ensure adherence to restricted area control procedures to maintain site security and to restrict access to the area at risk.

4.2. In the event of a fire where the 40MM HEDP Linked munitions is directly involved, all non-essential personnel will immediately evacuate 2,500 feet away from the MAF; essential personnel will follow the Commander's evacuation plan and notify EOD. SF personnel will attempt to maintain visual security of MAF. If maintaining security of the MAF is not possible, reference the appropriate security procedures.

4.3. SF personnel will employ applicable directives for establishing entry and traffic control points to protect the public and responding emergency support teams.

4.4. If the 40MM HEDP Linked munitions is not on fire, or exposed to high heat or other hazards, the SF Team members should attempt to remove the canisters from the SCC during evacuation and retain possession of the munitions.

SCOTT M. FOX, Colonel, USAF
Vice Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFMAN 91-201, *Explosives Safety Standards*, 12 January 2011

AFMAN 33-363, *Management of Records*, 01 March 2008

AFI 33-332, *Air Force Privacy Program*, 16 May 2011

AFI 31-401, *Information Security Program Management*, 01 November 2005

AFI 91-202, *The US Air Force Mishap Prevention Program*, 05 August 011

DoDM 5200.01V2, *DOD Information Security Program Marking of Classified Information*, 24 February 2012

Prescribed and Adopted Forms

Prescribed Forms: No forms are prescribed by this publication.

Adopted Forms: AF Form 847, *Recommendation for Change of Publication*